

RF Exposure Requirements

Product Description: self-ballast LED lamp

Model No.: y-A880ST-Q1R-xx

FCC ID: 2AB2QY-A880ST-Q1R

According to the KDB-447498 D01 V05r02, the following RF exposure evaluation shall to demonstrate RF exposure compliance.

Bluetooth

Tx frequency range: 2405~2480MHz

Device category: Removable device

Maximum Conducted Output Power: 7.91 dBm

Maximum Antenna Gain: 0 dBi

Minimum Distance: 5mm

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$\left[\frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f_{\text{(GHz)}}} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{25} \text{ where}$$

- $f_{\text{(GHz)}}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁶
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So, the RF exposure limit is 10mW.

Source-based time-averaged EIRP output power is 6.18mW $<$ 10mW

So the transmitter complies with the RF exposure requirements and the SAR is not required.